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NSC BRIEFING

11 August 1954

PERFORMANCE OF SOVIET [REDACTED]

25X1D

25X1X7

I. [REDACTED] estimate of the new Soviet jet heavy bomber's probable performance, as it will be in 1957, now available. Table shows both joint estimate and earlier estimate by USAF alone.

25X1X71

	<u>Optimum Mission</u>	<u>US Estimate Optimum Mission</u>
Take off weight	365,000 lbs.	345,000 lbs.
Bomb load	10,000 lbs.	10,000 lbs.
Combat radius	3,000 nm.	2,600 nm.
Combat range	5,900 nm.	5,100 nm.
Target altitude	43,000 ft.	43,700 ft.
Maximum targets speed	490 kts.	487 kts.

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II. This performance estimate (with 10,000 lb. bomb load, i.e. multi-megaton weapon)* indicates that, in absence forward staging (on Chukotsk) and range extension (in-flight refueling or one-way missions), striking power [REDACTED] is still generally oriented toward Europe, Asia, and peripheral areas. Thus, full measure of [REDACTED] threat to US depends upon:

A. Soviet development of in-flight refueling (capability not yet demonstrated and requiring 18-24 months to develop).

B. Soviet decision in 1957 to expend all 50 [REDACTED] then estimated to be operational on missions where only half might be expected to reach targets.

* For other bomb-weight computations, see "Background - Bomb Load Variations"

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III. New performance estimate, therefore, leaves mid-1957 picture unchanged. Conventional TU-4 would still figure prominently; 25X1D medium jet [REDACTED] would be powerful element of strength against Eurasian and peripheral targets; [REDACTED] would just be reaching significant quantities.

- A. In view Soviet nuclear capabilities, picture is serious, formidable.
- B. But picture not particularly alarming as regards continental US.

- C. With subsequent combination of [REDACTED] series production, forward staging bases in operational condition, and development of effective in-flight refueling, however, Soviet air threat to US increases sharply - becomes very grave by 1958-59.

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BACKGROUND - BOMB LOAD VARIATIONS

25X1D

- I. By decreasing the [redacted] bomb load from 10 to 3 thousand lbs. and putting the 7 thousand lb. saving into fuel, the combat radius/range is slightly extended.
- II. However, a 3,000 lb. nuclear weapon would be only marginally acceptable as a strategic weapon.
 - A. If economically constructed, a 3,000 lb. weapon could yield some 20KT--equal to the Nagasaki bomb.
 - B. If extravagant and inefficient use of nuclear material permitted, this yield could be boosted.
- III. Uneconomical use of nuclear material in 1957 appears improbable, since the Soviet stockpile at that date will still be relatively modest.

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COMPARISON: TYPE 39 AND
US B-52 "BASIC MISSION"*

25X1A9a

US B-52

25X1D

Estimate:

Take off weight	365,000 lbs.	390,000 lbs.
Bomb load	10,000 lbs.	10,000 lbs.
Combat radius	2,575 nm.	3,160 nm.
Combat range	5,050 nm.	6,560 nm.
Target altitude	40,000 ft.	46,700 ft.
Maximum target speed	490 kts.	480 kts.

* "Basic Mission" contrasts with "Optimum Mission" in that all conditions assumed for an "Optimum Mission" are aimed at maximum possible fuel-load and therefore absolute maximum radius/range.

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